

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007127**Date Inspected:** 17-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei / Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

Heavy Equipment Shop Bay 11:

The QA Inspector randomly observed that the longitudinal stiffeners had been fit up and tack welded again to Lift 3 Skin Plate D. They had been previously removed because they were 20 millimeters (mm) over the contract specified length. The stiffeners were cut at a previously welded butt seam, the excess 20 mm removed and then re-welded. The attached photographs provides additional detail.

The QA Inspector randomly observed a ZPMC welder utilizing the Shielded Metal Arc Welding Process (SMAW), to attach a dog to Lift 2 East 53M Diaphragm to allow for the fit up and welding of a fit lug for Skin D. The welder had no Welder ID and left the tower when the QA Inspector asked him for it. The QA Inspector asked ZPMC Quality Control Personnel to provide the QA Inspector with the welder's Certifications. There were no certifications provided by the end of the work shift and the welder did not enter the tower again. The attached photograph provides additional detail.

OBG Sub-Assembly Bay 12:

The QA Inspector randomly observed 3 ZPMC helpers utilizing angle grinders to excavate areas in welds marked

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up after Phased Array Ultrasonic Testing (PAUT) Inspection on the welds attaching the U-Ribs to Deck Plate 8BW-DP147-001 at WJ's 001 through 010.

The QA Inspector randomly observed ZPMC welder Han Si Qi ID 202842, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC WPS WPS-345-FCAW-2G (2F)-Repair in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions to weld U-Rib repairs on Deck Plate 8BW-DP147-001 at WJ's 001 through 010 after PAUT Inspection. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

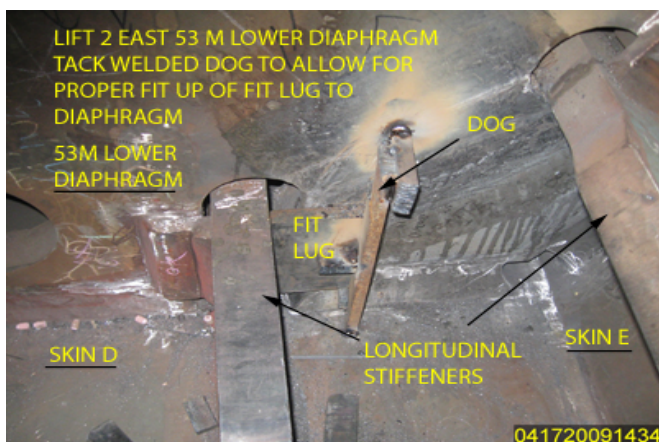
The QA Inspector randomly observed 1 ZPMC helper utilizing an angle grinder to excavate areas in welds marked up after PAUT Inspection on the welds attaching the U-Ribs to Deck Plate 8BE-DP390-001 at WJ's 001 through 010.

The QA Inspector randomly observed 1 ZPMC helper utilizing an angle grinder to blend areas after PAUT weld repairs, on the welds attaching the U-Ribs to Deck Plate 8BW-DP147-001 at WJ's 001 through 010.

The QA Inspector randomly observed ZPMC welder Han Si Qi ID 202842, utilizing the FCAW Process with ZPMC WPS WPS-345-FCAW-2G (2F)-Repair in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions to weld U-Rib repairs on Deck Plate 8BE-DP390-001 at WJ's 001 through 010 after PAUT Inspection. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed 2 ZPMC helpers utilizing angle grinders to blend areas after PAUT weld repairs on the welds attaching the U-Ribs to Deck Plate 8BE-DP471-001 at WJ's 001 through 010.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No relevant conversations.

Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
